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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,903

07/23/2007

Tokuji Oda

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EXAMINER

PATTERSON, MARC A

ART UNIT

PAPER NUMBER

1782

MAIL DATE

DELIVERY MODE

07/21/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,903	Applicant(s) ODA ET AL.	
	Examiner MARC PATTERSON	Art Unit 1782	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-15, 18, 19 and 30-35 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 12-15, 18, 19 and 30-35 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/1/07;9/29/08;1/5/09</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The phrase ‘the material’ in line 4 is indefinite as it is unclear if the phrase refers to electrodeposit material or thin wire material.

Claim Rejections – 35 USC § 102(b)

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 30 – 31 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Hoffman (U.S. Patent No. 5,011,566).

With regard to Claims 30 and 35, Hoffman discloses a tube by electroforming produced by forming an electrodeposit around a thin wire material and removing the thin wire (the thin wire is fiber; column 2, lines 54 - 67); the tubes have a diameter of 10 μm or more and 85 μm or less (column 2, lines 50 - 53); a plurality of portions are formed, because two adjacent tubes are disclosed, as shown in Figure.

With regard to Claim 31, the claimed aspect of the pulling of the wire deforming the material is directed to a process limitation and is therefore given little patentable weight.

Claim Rejections – 35 USC § 103(a)

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12 – 15, 18 – 19 and 32 – 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoffman (U.S. Patent No. 5,011,566).

With regard to Claim 12, Hoffman discloses tubes as discussed above. The tubes comprise metal (column 2, lines 54 - 67) and are therefore conductive at their peripheries; the wire comprises glass, therefore an insulating material (column 3, line 3), and the tubes are therefore formed by disposing a conductive layer on an outer surface layer on an insulating material. Hoffman fails to disclose a partition wall comprising a third tube between the two tubes. However, Hoffman discloses that the number of tubes is not limited to two (column 2, lines 28 - 33). It would have been obvious for one of ordinary skill in the art to provide for a third tube, as Hoffman discloses that the number of tubes is not limited to two.

With regard to Claims 13 and 32, the thickness of the tube is 5 mm or more and 50 mm or less (column 2, lines 43 - 46).

With regard to Claims 14 – 15 and 33 – 34, Hoffman fails to disclose conductive layers constituted of a material different from that of the electrodeposit material. However, Hoffman

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discloses electrodeposit material comprising ferrous metals and non - ferrous metals (column 2, lines 54 – 58). It therefore would have been obvious for one of ordinary skill in the art to provide for layers of ferrous metal and a layer of non - ferrous metal, therefore conductive layers constituted of a material different from that of the electrodeposit material, as ferrous metals and non - ferrous metals are disclosed by Hoffman.

With regard to Claims 18 – 19, the conductive layer disposed on the outer surface of the outer surface of the partition wall member is constituted to form a part of the hollow portion.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497.

The examiner can normally be reached on Mon - Fri 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Marc A Patterson/
Primary Examiner, Art Unit 1782

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